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(51) INT CL<sup>6</sup>

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GB 2181589 A GB 2170938 A

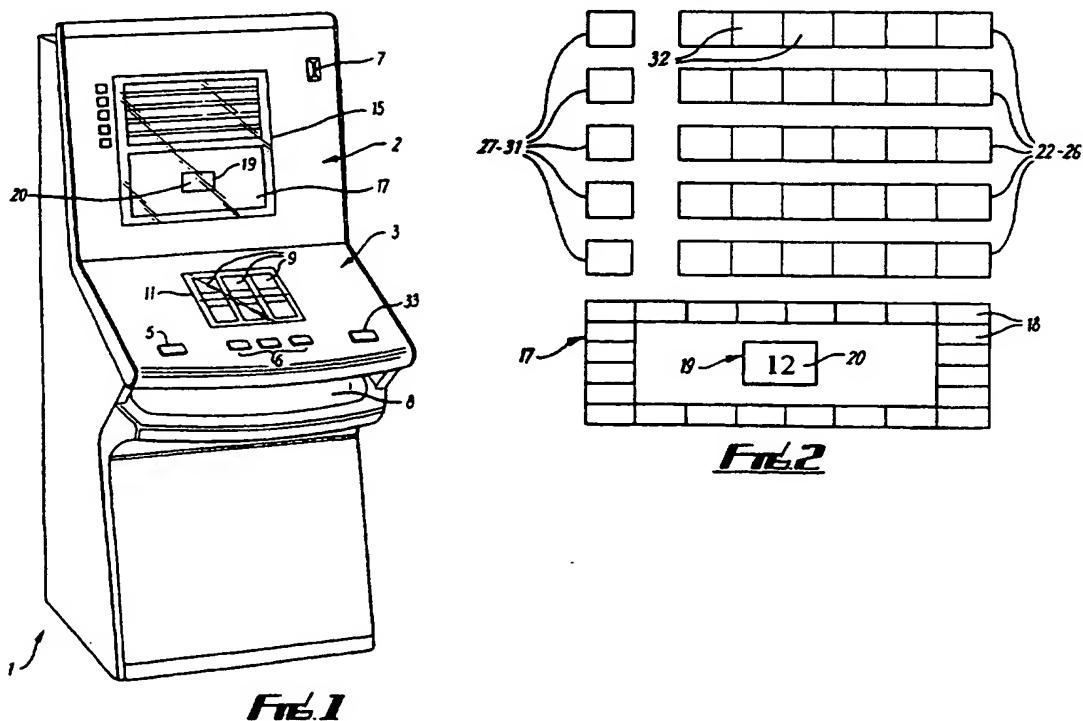
(58) Field of Search

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INT CL<sup>6</sup> G07F 17/32 17/34  
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(54) Abstract Title

Entertainment machine with trail

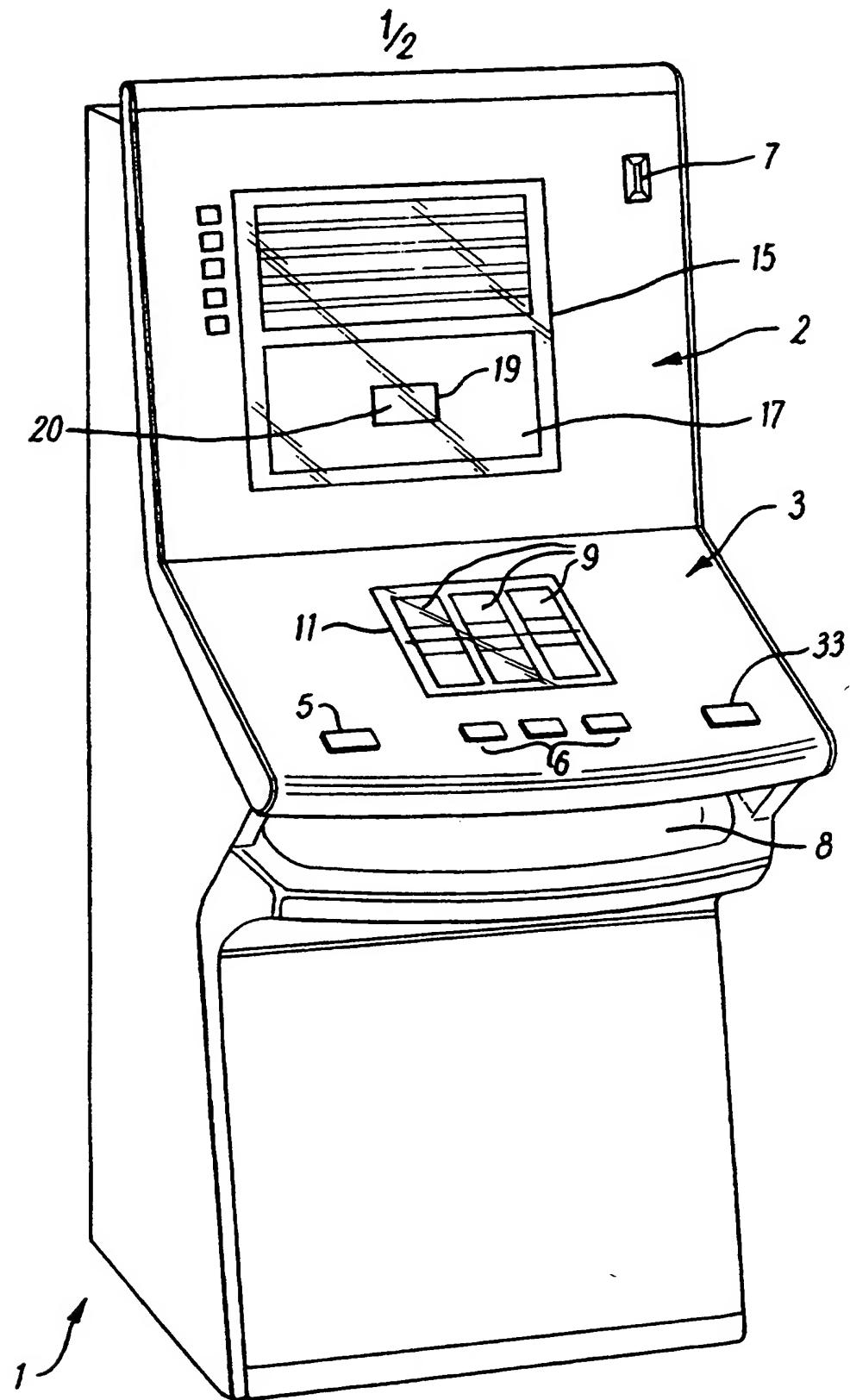
(57) An entertainment machine has a main display, eg reels 9, Figure 1, a supplementary game-playing display region 15 with a trail 17, a number of award zones 22-26, Figure 2 associated with the trail, and a zone selector for selecting the zones to make available awards therefrom. As described, certain results obtained from the reels 9 enable transfer to the trail 17. A button-operated selector reel 20 determines which of series of sections 18 around the trail is illuminated and this section may display a "key" or a "knockout" symbol. When sufficient keys have been accumulated one of the zones 22-26 is selected and a random or predetermined award may be gained by operating an associated button 27-31. Payout may be inhibited unless a sufficient number of "knockouts" have also been accumulated. Each award zone may have sections depicting different awards which may include the facility to transfer to a different, higher, award zone.



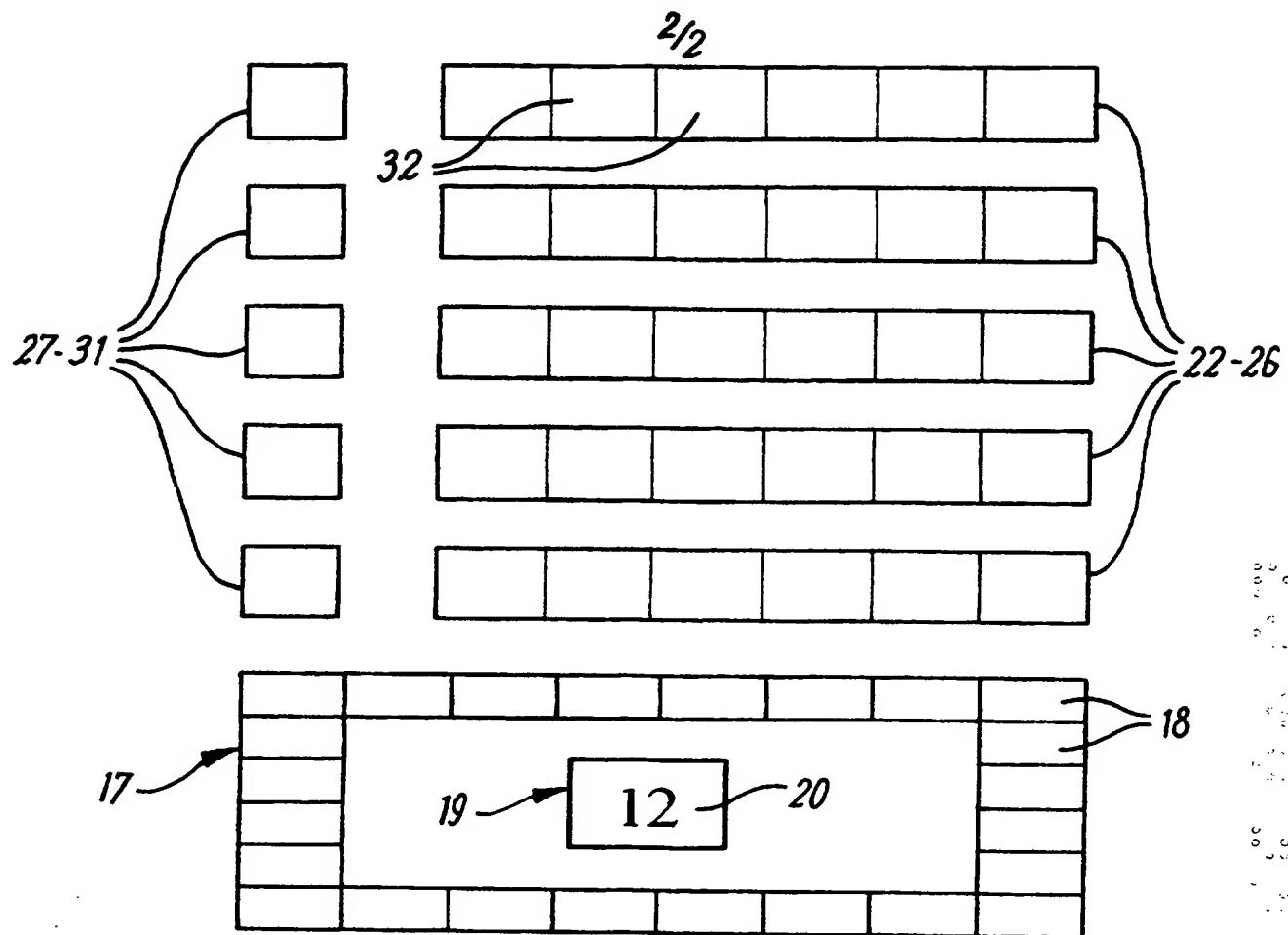
At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1995

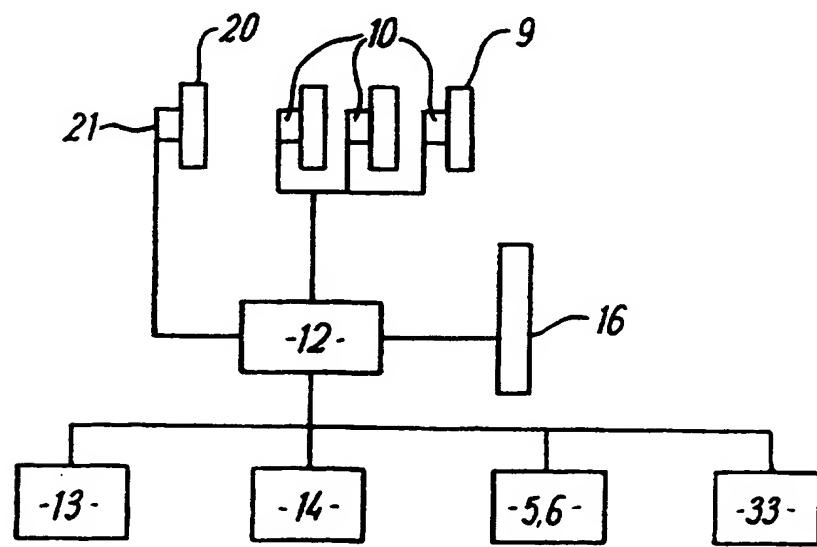
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**FIG. 1**



**Fig. 2**



**Fig. 3**

**233380**

-1-

ENTERTAINMENT MACHINES

This invention relates to player-operable entertainment machines, particularly coin-operated amusement with prizes (AWP) machines, such as "fruit" or "poker" machines of the kind having a main display device for displaying a selected combination of symbols at a win zone. As used herein the term coin is intended also to cover tokens, charge or credit cards or any other means of supplying credit or monetary value.

The main display device of a fruit machine may comprise multiple side-by-side reels which are rotatable about a common horizontal axis within a housing behind a window at the win zone. Each reel has symbols at equally spaced positions around its periphery and the reels can be brought to rest with one symbol on each reel displayed through the window on a win line.

If the displayed combination of symbols constitutes a predetermined winning combination an award may be made available to the player.

It is well known to provide a supplementary display or 'games feature' which can be used to enhance the entertainment value of the machine and provide additional or alternative opportunities for winning.

In particular, it is known to provide a panel having sections which can be selectively illuminated to represent movement from location to location along a trail, particularly along a wraparound trail, which may simulate the playing of a board game.

Play is transferred from the main reels to the trail of the games feature on a random or predetermined basis and illumination of the panel sections may then be effected by, or in correspondence with, a rotatable subsidiary feature reel, or otherwise, representing the spin of a reel or roll of a dice or other selection.

5

Awards or award possibilities may be made available to the player in dependence on the location on the trail to which play has progressed.

An object of the present invention is to provide a games feature having enhanced award possibilities.

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According to the invention there is provided an entertainment machine having a supplementary game-playing display region with a trail and a plurality of award zones associated with the trail whereby play can transfer from the trail to the zones, a zone selector being provided for selection of said zones to make available awards therefrom.

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With this arrangement, there may be enhanced award possibilities, in the sense of a wider range of kinds of awards and/or a wider range of routes to the attainment of awards, which can enhance game-playing entertainment. As desired, but not necessarily, there may be enhancement of award value or frequency.

20

The award zones may each have multiple awards associated therewith, for example they may comprise multi-section zones with the sections, or some of them, bearing symbols corresponding to respective

awards. Alternatively, the zones may each comprise digital or other displays capable of operation to indicate different awards.

In the case of multiple award zones, the award made available when the zone selector is operated may be selected at random from the range of 5 possible awards. Alternatively provision may be made for selection as between awards of a selected zone on a predetermined or player-implemented basis.

Indication of an available award may be achieved by illumination of 10 an award indicating symbol at the zone, particularly by back illumination of a printed light transmitting surface.

The zone selector may comprise one or more player-operable controls for example a respective push-button associated with each zone. Other arrangements are also possible, comprising, for example, a single push-button or other player control which can be used to select any of the 15 zones (e.g. by arresting sequencing from zone to zone), or an automatic arrangement whereby zones are selected outside the influence of the player, or an automatic player control which acts to select a zone as a best selection or on some other basis without requiring a player decision.

Awards made available may be automatically awarded, or may be 20 credited to the player for future award, or the player may be given the option of trying to increase the award, e.g. by gambling this with a conventional 'gamble' feature, prior to award or credit. Awards may be of

any suitable nature including monetary payout, free games, scored points, extra 'nudges' or 'holds' or other game features.

The zone selector may be operable to select any one of the zones on any occasion.

5        Preferably however, selection is only available in relation to an indicated zone, such indication being effected in any suitable manner e.g. by illumination of a respective press button associated with the zone. In this case, provision is preferably made for progression through the zones, such progression occurring in a random manner or in accordance with a  
10      predetermined sequence or in response to selection made with the trail or otherwise.

The awards of different zones may be of different kinds. For example, awards may change by increase in value from zone to zone, or by range of awards or otherwise. Thus, there may be an incentive for the  
15      player to seek to move to another zone, rather than obtaining an award already offered on one zone, e.g. in the hope of obtaining a higher value award.

Qualification for transfer from the trail to the zones may be subject to attainment of a transfer symbol or symbols such as a 'key' on the trail.  
20      This may be cumulative in the multiple symbols or an accumulated symbol value may be necessary to qualify for transfer. Movement from zone to zone may be effected from the trail by attaining one or more symbols on the

trail. Alternatively or additionally movement between zones may be achieved by other selection routes. In particular, one or more 'awards' selectable from the zones may effect or contribute to movement between zones.

5 Qualification for transfer from the trail to the zones may also implement or permit implementation of award selection. Thus, for example, when a key, or a sufficient number of keys, have been attained to qualify for transfer to one of the zones, at the same time an award may be made available for selection in that zone.

10 Alternatively and preferably however, attainment of a further indication, such as the attainment of a 'knockout' symbol on the trail, may be required before an award can be obtained. Provision may be made for storage or accumulation of such further indications for subsequent use. The player may then have the option of either operating the selector to attain an  
15 award from the selected zone or continuing with play to seek to transfer to another zone whereby an alternative award or awards may be available.

With regard to the trail, this may be of any suitable form and thus may comprise a sequence of sections in a closed loop or the like around which play can progress in correspondence with selection of a number of  
20 steps using an auxiliary selector reel or the like.

Most preferably the entertainment machine is an 'amusement with prizes' (AWP) machine particularly of the fruit machine or poker machine

kind using actual (or simulated) rotatable reels as mentioned above. In this case, the display region is preferably a supplementary display region for use with a games feature additional to a main display of the machine.

The invention will now be described further by way of example only  
5 and with reference to the accompanying drawings in which:-

Fig. 1 is a diagrammatic perspective view of one form of an entertainment machine according to the invention;

Fig. 2 is an enlarged diagrammatic view of part of the display  
of the machine of Fig. 1; and

10 Fig. 3 is a block circuit diagram of the machine.

Referring to the drawings, Fig. 1 shows a fruit machine having a floor-standing box shaped housing 1 having a front wall which includes upper and lower glass panels 2, 3, a number of operating buttons 5, 6, a coin slot 7 and a payout opening 8.

15 Within the housing 1 there are three axially aligned reels 9 having say 20 symbols at regularly spaced positions around their peripheries. The reels 9 are axially rotatable and are drivably connected to respective stepper motors 10. The reels 9 are arranged behind a window 11 defined by a printed region of the lower glass panel 3. Each reel 9 can be arrested by  
20 the respective stepper motor 10 in any of 20 stopping positions in which one symbol is in precise registration with a horizontal win line in the centre of the window 11 and two further symbols are visible above and below the

win line.

The stepper motors 10 are connected to a microprocessor-based control unit 12. This unit is also connected to a coin-mechanism 13, a payout mechanism 14 and the buttons 5, 6.

5 In use, the player inserts coins into the coin mechanism 13 through the slot 7 sufficient to generate credit for one or more games, and the machine is actuated so that a game can now be played. The game commences after a start button 5 has been pressed and the reels 9 spin and then come to rest so as to select a combination of symbols displayed on the  
10 win line. The displayed symbol combination is assessed by the control unit 12 and a win indication is given in the event that the combination is of a predetermined winning nature.

The control buttons 6 can be used to perform 'hold' or 'nudge' functions, when made available to the player, so that the player can seek  
15 to influence the outcome of a game, in conventional manner.

The upper panel 2 is a transparent glass panel and within this there is a printed display region 15, which can be back-illuminated with a bank of lamps 16, and which provides a supplementary games feature.

As shown, this games feature comprises a wraparound trail 17  
20 comprising a series of printed sections 18 marked with decoration, information and symbols.

In the centre of the trail there is a printed window behind which an

auxiliary feature reel 20 is rotatable. The reel 20 has around its periphery the numbers 1 to 12 corresponding to the values which can be selected with two dice. The reel 20 can be rotated with a stepper motor 21, controlled by the control system 12, and brought to rest with one of the  
5 numbers shown through the window 19.

Play can progress around the trail 17 by successive back illumination of the sections 18 simulating movement through a number of steps corresponding to the number selected with the feature reel 20.

One or more of the trail sections 18 are marked with one or more  
10 'key' symbols. Also one or more of the trail sections 18 are marked with one or more 'knockout' symbols.

Above the trail there are five strip-shaped 'box' zones 22-26 with a respective press-button 27-31 alongside each of these. The press-buttons 27-31 are illuminated when selected for operation.

15 Each box zone 22-26 is divided into a number of sections 32 marked with respective symbols representing awards such as 'keys', game features (such as nudges, etc), cash values etc.

The sections 32 can be back illuminated for selection of the corresponding awards.

20 The box zones 22-26 are arranged one above the other and the award values increase upwardly. That is, in any one zone the different awards may have comparable values whereas different zones have different

average award values.

Play transfers to the trail 17 in the usual way on a random or predetermined basis, e.g. when predetermined transfer symbols on the main reels 9 are selected on the win line or otherwise.

5       The player can then operate a press button 33 to cause the feature reel 20 to rotate and select a number which causes play to progress along the trail 17 to a selected section 18 at which a symbol on the section 18 is back illuminated.

In the case where a key symbol is illuminated this increments a 'key' 10 counter to produce a displayed number of accumulated keys on a display (not shown). When a predetermined minimum number of keys has been accumulated, by progressing to a section 18 on the trail 17 having that number of keys, or by progressing in successive moves to sections 18 which have in total the required number of keys, play can then transfer to 15 the lowermost of the box zones 22, this being indicated by illumination of the button 27 alongside the lowermost box zone 22.

In the case where a 'knockout' symbol is illuminated on the trail 17 this increments a 'knockout' counter to produce a displayed number of accumulated knockout symbols on a display (not shown).

20      When the knockout counter shows at least one knockout symbol and the lowermost button 27 is illuminated the player has the option of pressing this button 27. This causes the knockout counter and the key counter to

decrement and one of the sections 32 of the lowermost box 22 is illuminated at random thereby to select the associated award and to make this available to the player.

Instead of pressing the illuminated button 27, the player can opt to 5 continue operating the feature reel 20 to move around the trail 17 in the hope of attaining an increased key count sufficient to transfer play to the next highest box zone 23 (and so on) which contains awards of higher average value.

In so far as the symbols of the zone sections 32 also include keys, 10 it will be understood that play can transfer to a higher box zone 23 etc. as a consequence of operation of the button of a lower zone causing a zone section key to be selected.

One or more limitations may be imposed on the foregoing by virtue of time, or number of operations, or game duration or game outcome or 15 otherwise. Thus, successive operations of the feature reel 20 may be limited in accordance with a predetermined parameter or may be permitted to continue until a symbol is selected on a section 18 of the trail 17 which terminates play of the feature game. Accumulated counts of the knockout or key counter and operability of the buttons 27-31 may be maintained 20 throughout successive games or may be reset or cancelled at the end of a game or at the end of play of the feature game.

With the arrangement described above, there are enhanced

possibilities for attaining awards in the feature game which provides additional player entertainment.

It is of course to be understood that the invention is not intended to be restricted to the details of the above embodiment which are described

5 by way of example only.

CLAIMS

1. An entertainment machine having a supplementary game-playing display region with a trail and a plurality of award zones associated with the trail whereby play can transfer from the trail to the zones, a zone selector being provided for selection of said zones to make available awards therefrom.
2. An entertainment machine according to claim 1 in which the award zones each have multiple awards associated therewith.
3. An entertainment machine according to claim 2 comprising multi-section zones in which at least some of the sections bear symbols corresponding to respective awards.
4. An entertainment machine according to claim 2 or 3 in which the award made available is selected at random from a range of possible awards.
- 15 5. An entertainment machine according to claim 2 or 3 in which the award made available is selected from awards of a selected zone on a predetermined basis.
6. An entertainment machine according to any preceding claim in which illumination of an award indicating symbol at the zone indicates an available award.
- 20 7. An entertainment machine according to any preceding claim in which

the zone selector comprises one or more player operable buttons.

8. An entertainment machine according to claims 1 - 6 incorporating automatic zone selection.

9. An entertainment machine according to any preceding claim in which zone selection is only available in relation to an indicated zone.

10. An entertainment machine according to claim 9 in which said zone indication is effected by illumination of a respective press button associated with the zone.

11. An entertainment machine according to claim 8 or 9 in which provision is made for progression through the zones.

12. An entertainment machine according to any preceding claim in which qualification for the transfer of play from the trail to the zones is subject to attainment of a transfer symbol or symbols.

13. An entertainment machine according to claim 12 in which the qualification is subject to cumulative attainment of transfer symbols.

14. An entertainment machine according to claim 12 in which the qualification is subject to the attainment of an accumulated symbol value.

15. An entertainment machine according to claims 11 -14 in which movement from zone to zone is effected from the trail by attaining one or more symbols on the trail.

16. An entertainment machine according to claims 11 - 14 in which one

or more awards selectable from the zones effect movement between zones.

17. An entertainment machine according to any preceding claim in which attainment of a further indication is required before an award can be obtained.

5       18. An entertainment machine according to claim 17 in which attainment of a 'knockout' symbol on the trail is required before an award can be obtained.

19. An entertainment machine according to claim 17 or 18 in which attained further indications can be accumulated for subsequent use.



**Application No:** GB 9814794.5  
**Claims searched:** All

**Examiner:** Geoff Nicholls  
**Date of search:** 16 June 1999

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:  
UK Cl (Ed.Q): G4V (VAA).  
Int Cl (Ed.6): G07F 17/32 17/34  
Other: ONLINE:WPI,EPODOC,JAPIO

**Documents considered to be relevant:**

| Category | Identity of document and relevant passage                   | Relevant to claims                     |
|----------|---|--|
| X        | GB 2181589 A (BARCREST) Whole document relevant             | 1, 2, 4,<br>6 to 8,<br>11 to 13,<br>15 |
| X        | GB 2170938 A (THOMAS) See especially Page 3 lines 52 to 105 | 1 to 8 11,<br>12, 14                   |

- X Document indicating lack of novelty or inventive step  
Y Document indicating lack of inventive step if combined with one or more other documents of same category.  
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- A Document indicating technological background and/or state of the art.  
P Document published on or after the declared priority date but before the filing date of this invention.  
E Patent document published on or after, but with priority date earlier than, the filing date of this application.



Application No: GB 0321020.0  
Claims searched: 1 - 36

Examiner: Tom Sutherland  
Date of search: 8 January 2004

### Patents Act 1977 : Search Report under Section 17

#### Documents considered to be relevant:

| Category | Relevant to claims | Identity of document and passage or figure of particular relevance |  |
|----------|--------------------|--|--|
| X        | 1, 15, 18          | GB 2333880 A   | (BARCREST) See the Figs and page 4 line 21 to page 5 line 4. |
| X        | 1 - 36             | US 6439995 B1  | (HUGHES-BAIRD et al) Whole document relevant                 |
| X        | 1 - 20 at least    | US 20020045475 A   | (GLAVICH et al) see the Figs.                                |

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#### Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC<sup>6</sup>:

G4V

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G07F

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